

**From:** [REDACTED]  
**Sent:** Thursday, October 12, 2000 4:08 PM  
**To:** mike buckley  
**Cc:** matt miller; todd davison; doug bellomo; mark vieira; [REDACTED]; [REDACTED]  
**Subject:** Fw: Information for Submittal to FEMA

I am forwarding the letter below from Lockwood Greene in preparation for the meeting in Atlanta next Wednesday. The information provided is based on the Lexington BFE HEC-2 run that we consider to be correct once several minor input errors are revised. Once we receive the list of clarifications and revised Richland HEC-2 model to reflect the Lexington BFE HEC-2 without levee; we can, if necessary, prepare the appropriate computations very quickly.

Also, once FEMA receives information from SCE&G verifying flow regulation of Saluda Dam ( Lake Murray ), we would like to rerun the HEC-2 computations with you using the revised flows. There are two main issues in FEMA's 100-year flow computations that need to be discussed. They are:

- Reflection of the adjusted flows at the Congaree River gage at Gervais Street to reflect the flood control benefits of the Saluda Dam for water years 1928, 1929, 1930 and 1936.

- Proper adjustment for regulation of the Saluda Dam on published peak flows at Gervais Street prior to the 1926 water year.

On the two issues above, the 100-year flow of 292,000 cfs computed by FEMA is in conflict with the letter to FEMA from SCE&G on June 9, 2000. The SCE&G letter was attached to the letter from SCANA ( SCE&G's parent company ) submitted to FEMA October 4, 2000. It is my understanding that the June 9 letter was not provided to USGS during its review of the hydrology. As a result of SCANA's October 4 letter, we respectfully request that FEMA request and use the information necessary to properly reflect SCANA's agreement on the aforementioned peak flows. Our sensitivity calculations indicate a 100-year flow between 250,000 and 260,000 cfs using SCANA's information. If minor alterations are made to FEMA's computation, without additional information from SCANA reflecting SCANA's increasing the height of the Saluda Dam since 1940, the result appears to be approximately 270,000 cfs. Hopefully, on the basis of SCANA's commitment to cooperate, this issue can be resolved prior to next Wednesday.

Finally, please note that Lockwood Greene has not concluded its analysis of the 2D model issue. However, we can still resolve the proposed CLOMR issue without further discussion of that issue. Please call me with any questions or comments at [REDACTED].

Thanks,

[REDACTED]

----- Original Message -----

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Sent:** Thursday, October 12, 2000 3:53 PM  
**Subject:** Information for Submittal to FEMA

12 October 2000  
Mr. Michael K. Buckley, PE  
Director  
Technical Services Division  
Mitigation Directorate  
Federal Emergency Management Agency  
Washington, DC 20472

Dear Mr. Buckley:

Subject: Congaree River - Revised HEC-2 file

After review of the FEMA prepared HEC-2 files, we offer the following computations for discussion during our meeting scheduled on 18 October 2000.

1. FEMA Lexington BFE model @ 292,000 cfs model with levee in place.
  - a. Summary list of minor corrections made to this model include:
    - i. The Lexington model represents effective flow on the landward side of the levee for over 5000 feet at section 249590. Corrective action is to revise Manning's "n" value from 0.06 to 10.
    - ii. Revising GR records to use ground surveyed existing levee top elevations.
    - iii. The left top of bank station is coded incorrectly for section 242121. Corrective action is to set left bank at station 10815, along with the ineffective flow area limit. The top of levee at this section is at station 10815 (not 10765 as indicated).

2. FEMA Lexington BFE model @ 292,000 cfs converted to floodway model with levee in place. This is the Conditional Letter of Map Revision ready model.
  - a. Corrections are the same as in item 1 above.
  - b. This model indicates no BFE increase or floodway change from the corrected model in item 1 above. See the attached HEC-2 file.
  - c. We believe that this agrees with page 27 (last paragraph) of the Appeal Resolution document and of page 7-4 of FEMA 37 and is the most conservative, technically correct model of the floodway for Lexington County. See the attached BFE versus top of levee comparison.
3. The FEMA prepared Richland BFE and floodplain models had multiple differences from the Lexington BFE model that are not related to the existing levee. We were unable to verify why changes were made to the Lexington model. Once we receive technical clarification for the modifications to the Lexington model we will provide the additional computations, if necessary. See the attached three-page list of differences between the Lexington and Richland models.

We look forward to the upcoming 18 October 2000 meeting and resolution of the floodway/floodplain issues. Feel free to call [REDACTED] at [REDACTED] for clarifications or questions.

Sincere regards,

LOCKWOOD GREENE  
[REDACTED]

Enclosures:

1. HEC-2 Files
2. CLOMR Modeling Summary
3. Comparison of Levee Elevation to BFE
4. Levee Top Elevation Adjustment
5. Lexington Floodway vs. FEMA Floodway Summary
6. Summary of Revisions to HEC-2 models
7. Model Differences from FEMA Lexington & Richland HEC-2 files

cc:

[REDACTED]



CLOMR HEC-2  
Modeling Summary.xls



Comparison of Levee  
Bev vs BF .



Levee Top Elevation  
Adjustment .



Lexington PW Model vs  
FEMA Flo...



Model differences doc



Summary of Revisions  
HEC-2 mod.



REVHEC2.zip



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image001.wmz